Anupam Sharma

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RESEARCH INTERESTS

- Computational Fluid Dynamics (CFD) and Aeroacoustics (CAA)
- Molecular / Particle methods (DSMC)
- High Performance Computing Applications

EDUCATION

2001-present Ph.D. in Aerospace Engineering. The Pennsylvania State University, University Park. USA.
Thesis: *Numerical Simulation of the Blast Impact Problem using the Direct Simulation Monte Carlo Method*
Adviser: Dr. Lyle N. Long

1999-2001 M.S. in Aerospace Engineering. The Pennsylvania State University.
Thesis: *Parallel Methods for Unsteady, Separated Flows and Aerodynamic Noise Prediction*
Adviser: Dr. Lyle N. Long
Minor in High Performance Computing. The Pennsylvania State University.

1995-1999 Bachelor of Technology in Aerospace Engineering. Indian Institute of Technology, Bombay. India.
Thesis: *Passage through Resonance of Rolling, Finned Projectiles with Center-of-Mass Offset*
Adviser: Dr. N. Ananthkrishnan

EXPERIENCE

May-Aug 2003 *Summer Intern*, Engineering and Propulsion Technologies Laboratory, Global Research Center, General Electric.
Adviser: Dr. Kevin Kirtley

1999-present *Graduate Research Associate*, Aerospace Engineering, Pennsylvania State University.
Adviser: Dr. Lyle N. Long

May-Aug 1999 *Summer Intern*, National Aerospace Laboratories, Bangalore. India.
Adviser: Dr. M. D. Deshpande

AWARDS AND AFFILIATIONS

- **Vertical Flight Foundation (VFF) award** for outstanding research in rotorcraft dynamics. May 2000.
- **President's silver medal** for securing 1st position, Aerospace Engineering, Indian Institute of Technology, Bombay, India. April 1999
- **Full scholarship** with tuition waiver, Pennsylvania State University. Aug. 1999 - present.
- Member, American Institute of Aeronautics and Astronautics.
- Member, American Helicopter Society.
- Member, Center for Acoustics and Vibration, Rotorcraft Center of Excellence, Protective Technology Center, and Institute for High Performance Computing Applications, Pennsylvania State University.

TECHNICAL SKILLS

Operating Systems	Linux and Windows 2000
System Administration	Linux (PC), Beowulf Cluster setup and management, Institute for High Performance Computing Applications, Pennsylvania State University.
Languages	C++, C, Java and Fortran 90
Software	MPI, Tecplot, Ideas, SysNoise, Latex, Cluster suites

TECHNICAL PUBLICATIONS

[1] A. Sharma and L. N. Long, "Numerical Simulation of the Blast Impact Problem using the Direct Simulation Monte (DSMC) Carlo Method," *Journal of Computational Physics*, submitted Nov. 2003.

[2] A. Sharma and L. N. Long, "A Parallel Object-Oriented DSMC Method for Blast Impact Simulations," in Proc. of *AIAA 16th CFD Conference*, AIAA Paper 2003-4234, Orlando, Florida, Jun. 2003.

[3] L. N. Long, A. Sharma, and F. Souliez, "Client-Server Java Programming for Wireless Mobile Robots," In Proc. of *Aerospace Sciences Meeting*, AIAA Paper 2003-0459, Reno, NV, Jan. 2003.

[4] A. Sharma and L. N. Long, "Using the Direct Simulation Monte Carlo Approach for the Blast-Impact Problem," In Proc. of *17th Military Aspects of Blast and Simulation*, Las Vegas, Nevada, Jun. 2002.

[5] F. Souliez, L. N. Long, P. J. Morris, and A. Sharma, "Landing Gear Aerodynamic Noise Prediction using Unstructured Grids," *International Journal of Aeroacoustics*, Vol. 1, No. 2, Jan. 2002, pp. 115–135.

[6] A. Sharma and L. N. Long, "Airwake Simulations on an LPD 17 Ship," In Proc. of *15th AIAA Computational Fluid Dynamics Conference*, AIAA Paper 2001-2598, Anaheim, California, Jun. 2001.

[7] A. Sharma and N. Ananthkrishnan, "Passage through Resonance of Rolling, Finned Projectiles with Center-of-Mass Offset," *The Journal of Sound and Vibrations*, Vol. 239, No. 1, Jan. 2001, pp. 1–17.

[8] A. Sharma and N. Ananthkrishnan, "Large-Amplitude Limit Cycles via a Homoclinic Bifurcation Mechanism," *The Journal of Sound and Vibrations*, Vol. 236, No. 4, Sep. 2000, pp. 725–729.

REFERENCES

REFERENCES (contd.)

Dr. Lyle N. Long   Professor of Aerospace Engineering, The Pennsylvania State University. `lnl@psu.edu`

Dr. Philip J. Morris   Professor of Aerospace Engineering, The Pennsylvania State University. `pjm@psu.edu`

Dr. Paul. E. Plassmann   Professor of Computer Science and Engineering, The Pennsylvania State University. `plassman@cse.psu.edu`

Dr. James B. Anderson   Professor of Chemistry, The Pennsylvania State University. `jba@psu.edu`

Dr. Kenneth S. Brentner   Professor of Aerospace Engineering, The Pennsylvania State University. `ksb@psu.edu`